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REMARKS

The above-identified application has been carefully reviewed in light of the Examiner's communication mailed June 19, 2003, which included a final rejection of certain of the claims, and the Advisory Action provided to applicant's attorney by facsimile on October 16, 2003. Applicant submits that the amendments and remarks included herein show all of the present claims to be allowable. Therefore, applicant respectfully requests that this Response C be entered and considered on its merits.

Applicant wishes to thank the Examiner for the courtesy shown applicant's attorney during the telephone interview on October 14, 2003. The claim amendments and many of the remarks included herein are based, at least in part, on what was discussed during this interview.

Applicant gratefully acknowledges the Examiner's holding that claims 12 to 41, 45 and 46 are allowable.

Claims 1 and 42 have been amended to provide that 50% or less of the matrix is dissolved in the fuel during and after the recited contacting step. Such amendments are fully supported by and consistent with the present specification, for example, by Table 1 on page 25 of the present specification.

The Examiner contends that claims 47 to 55 are directed to distinct inventions and that the first invention has been constructively elected by the original presentation for prosecution on the merits. Applicant traverses this holding.

However, in order to facilitate the prosecution of the above-identified application, applicant has canceled claims 47 to 55, without prejudice. Applicant expressly reserves the right to seek patent protection for claims 47 to 55 and/or similar claims in one or more later filed related applications.

Claims 1 to 5, 8 to 11 and 42 to 44 have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which is not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed

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invention. Applicant traverses this rejection as it pertains to the present claims, as amended.

As set forth in claim 1, the present invention is directed to methods of releasing a fuel additive into a fuel. Such methods comprise providing a fuel filter containing a fuel additive combined with a matrix material in a fuel additive composition. The fuel additive is distributed in the matrix material and is effective when released into a fuel to provide at least one benefit to the fuel.

The fuel filter is positioned between a source of fuel and an internal combustion engine. The method further includes contacting a portion of the fuel additive composition with a portion of the fuel to provide fuel compositions comprising the fuel additive dissolved in the portion of the fuel. The fuel composition is allowed to admix with the fuel. Fifty percent (50%) or less of the matrix material is dissolved in the fuel during, and preferably after, the above-noted contacting step.

As noted previously, Table 1 on page 25 of the above-identified application shows various matrix materials in contact with fuel at different temperatures for different times.

As Table 1 shows, certain of these matrix materials are insoluble (do not dissolve) in fuel even after being contacted with fuel for 24 hours at 104°F. In other cases, 25% of the matrix material is dissolved after being contacted with fuel. In still other instances as shown in Table 1, 50% of the matrix material is dissolved after being contacted with fuel. Further, in all but one instance, the solubility or dissolvability of the matrix materials remains the same after being contacted with fuel for one-half hour at 121°F or for 24 hours at 104°F. The fact that the solubility or dissolvability of the matrix materials does not substantially change even though different fuel contacting conditions are employed is clear evidence that the dissolvability data reported in Table 1 represent a substantially ultimate or final dissolvability of the matrix material in fuel at practical or use conditions.

Applicant submits that Table 1, on page 25 of the present

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specification, provides clear support for the recitations in claims 1 and 42 that 50% or less of the matrix material is dissolved in fuel during and after contacting with fuel.

In view of the above, applicant submits that the subject matter of claim 1 and claim 42, as presently amended, is described in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the above-identified application was filed, had possession of the claimed invention.

Therefore, applicant respectfully requests that the rejection of claims 1 to 5, 8 to 11 and 42 to 44 under 35 USC 112, first paragraph, be withdrawn.

The above-noted amendments to claims 1 and 42 were discussed with the Examiner during the above-noted telephone interview. The Examiner indicated that the proposed amendments still caused him to have questions, for example, with regard to Davis U.S. Patent 5,507,942, previously relied on by the Examiner. Specifically, the Examiner stated that column 7, lines 1 to 15, of Davis identified a system including a fuel additive combined with a paraffin wax substrate to provide proper release of a fuel additive into fuel. Although Davis discloses that the paraffin wax substrate is fuel soluble, the Examiner made reference to the above-noted portion of Davis which discloses maintaining or supporting the fuel additive in a vertical position to retain the undissolved portion of the fuel additive when the bottom of the fuel additive dissolves. The Examiner stated that this at least implies that a portion of the paraffin wax substrate of Davis is insoluble in fuel.

During the above-noted interview, applicant's attorney made reference to column 9, lines 34 to 44 of Davis. In this passage, Davis makes clear that the upper portion of the fuel additive/paraffin wax substrate is not in contact with fuel as the bottom of the fuel additive/paraffin wax substrate dissolves. When the filter media in Davis becomes obstructed, the fuel level in the housing rises, which causes the fuel to contact more of the fuel additive/paraffin wax substrate. As this occurs, more fuel additive and paraffin wax substrate is contacted with fuel to

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release the fuel additive and dissolve the fuel soluble paraffin wax substrate into the fuel.

In other words, Davis, taken as a whole, discloses that all of the paraffin wax substrate contacted with fuel is soluble in fuel.

The Examiner, during the above-noted interview, also questioned whether the solubility or dissolvability differences between Table 1 of the present specification and Davis are because of variables, such as size and length of time of contact.

As noted above, the tests reported in Table 1 of the present specification provide a measure of substantially ultimate or fuel dissolvability of the matrix materials tested. Under these circumstances, any size and contact time deficiencies between Davis and Table 1 are of little or no significance, particularly since the paraffin wax substrate of Davis is disclosed as being soluble when contacted with fuel, and Table 1 clearly shows matrix materials which are 50% or less dissolved during and after contact with fuel. As shown in Table 1, the degree of dissolvability of a particular matrix material remains substantially unchanged whether the material is exposed to fuel for one-half hour at one temperature or 24 hours at another temperature.

The differences between the totally soluble paraffin wax of Davis and the 50% or less dissolvable matrix materials in Table 1 are genuine differences. Without wishing to limit the invention to any particular theory of operation, it is noted that paraffin waxes are commonly made up of paraffin molecules, for example, paraffin molecules containing between 30 and 50 carbon atoms. On the other hand, the polymeric matrix materials, for example, the polyethylene-derived matrix materials, set forth in Table 1 are polymers having much higher molecular weights. After knowing of the dissolvability data presented in Table 1 of the present specification and that the paraffin wax of Davis is totally soluble, one of ordinary skill in the art might conclude that the paraffin wax of Davis is more fuel soluble than the matrix materials which are 50% or less dissolved in fuel, as set forth in Table 1, because the paraffin wax has a low molecular weight. In

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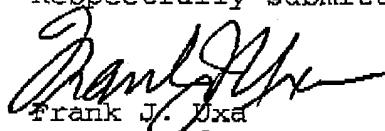
any event, applicant submits that the present matrix materials which are 50% or less dissolved in fuel during and after contacting with fuel are different and distinct from the totally fuel soluble paraffin wax of Davis.

In view of the above, applicant submits that claims 1 and 42, as presently amended, are not anticipated by and are unobvious from and patentable over Davis under 35 USC 102 and 103.

The above presentation regarding the current amendments to claims 1 and 42, and to distinguishing the present invention over Davis, was generally discussed in the above-noted telephone interview. It is believed that this presentation provides a substantially accurate summary of the above-noted interview.

In conclusion, the Examiner has held that claims 12 to 41, 45 and 46 are allowed. Applicant has shown that claims 1 to 5, 8 to 11 and 42 to 44, as amended, satisfy the requirements of 35 U.S.C. 112, first paragraph and are patentable over the prior art under 35 USC 102 and 103. Therefore, applicant submits that all of the present claims, that is claims 1 to 5 and 8 to 46 are allowable and respectfully requests the Examiner to pass the above-identified application to issuance at an early date. Should any matters remain unresolved, the Examiner is requested to call (collect) applicant's attorney at the telephone number given below.

Respectfully submitted,

  
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